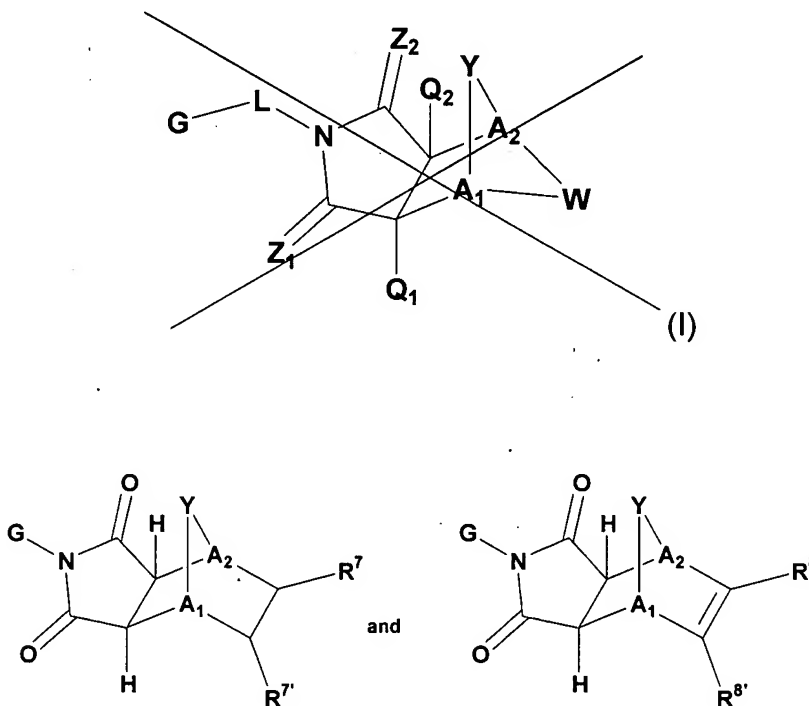


IN THE CLAIMS:

Below is a complete listing of all claims upon entry of this amendment.

1-4 (Canceled).

5 (Amended). A method of modulating the function of a nuclear hormone receptor in a mammal for the treatment of cancer comprising administering to the mammal an effective nuclear hormone receptor modulating amount of a compound of the following formula I or a pharmaceutically acceptable salt thereof:



where the symbols have the following meanings, and are, for each occurrence, independently selected:

G is a cycloalkenyl, aryl or heterocyclo group, where said group is mono- or polycyclic and is optionally substituted at one or more positions;

~~Z₁ is O, S, NH, or NR⁶;~~

~~Z₂ is O, S, NH, or NR⁶;~~

Y is ~~J J'~~, where J is $(CR^7R^{7'})_n$ and $n = 1-3$, J' is a bond, $CR^7R^{7'}$, or $CR^8=CR^{8'}$, or Y is absent;

W is ~~$CR^7R^{7'}$, $CR^7R^{7'}$, $CR^8=CR^{8'}$, or $CR^7R^{7'}$ —C=O~~;

A₁ is CR^7 , or where Y is absent, A₁ is $CR^7R^{7'}$;

A₂ is CR^7 , or where Y is absent, A₂ is $CR^7R^{7'}$;

Q₁ and Q₂ are each independently selected from H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo or substituted heterocyclo, halo, CN, $-(C(=O)OR^4)$, $-(C(=O)R^4)$, $-(C(=O)NR^5R^6)$, $-(C(R^7R^{7'})OH)$, nitro, $-(CH_2)OR^4$, $-OR^4$, $-(C(=O)SR^4)$, $-SO_2R^4$, $-NH_2$, and $-NR^4R^6$;
L is a bond, $-(CR^7R^{7'})_m$, $-NH-$, $-NR^5-$, $-NH(CR^7R^{7'})_m$, or $-NR^6(CR^7R^{7'})_m$, where $m = 0-3$;

R¹ and R^{1'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, alkynyl or substituted alkynyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, provided, however, that R¹ is not hydrogen when attached to $-SO_2O-$ or $-SO_2-$;

R⁴ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, alkynyl or substituted alkynyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, $-C(=O)R^1$, $-C(=O)OR^1$, $-C(=O)NHR^1$, $-SO_2OR^1$, $-SO_2R^1$ or $-SO_2NR^1R^{1'}$;

R⁵ is alkyl or substituted alkyl, alkenyl or substituted alkenyl, alkynyl or substituted alkynyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted

heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, $-C(=O)R^1$, $-C(=O)NHR^1$, $-SO_2OR^1$, $-SO_2R^1$ or $-SO_2NR^1R^{1'}$;

~~R^6 is alkyl or substituted alkyl, alkenyl or substituted alkenyl, alkynyl or substituted alkynyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, CN, $-OR^4$, $-C(=O)R^4$, $-C(=O)NHR^4$, $-SO_2R^4$, $-SO_2OR^4$ or $-SO_2NR^4R^{4'}$;~~

R^7 and $R^{7'}$ are at each occurrence independently selected from H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, alkynyl or substituted alkynyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, OR^4 , nitro, hydroxylamine, hydroxylamide, NHR^4 , $-NR^5R^5$, $-NHOR^1$, thiol, alkylthio or substituted alkylthio, oxo ($=O$), $-C(=O)R^1$, $-OC(=O)R^1$, $-C(=O)OR^1$, $-PO_3R^1R^{1'}$, $-C(=O)NR^1R^1$, $-C(=O)SR^1$, $-C(=O)NHSO_2R^1$, $-SOR^1$, $-SO_2R^1$, $-SO_2OR^1$ and $-SO_2NR^1R^{1'}$;

or ~~wherein W is $-C(R^7R^{7'})$, $-C(R^7R^{7'})$, said two R^7 and $R^{7'}$ groups of W attached to the same carbon atom may be joined to form a spiro ring, or two said R^7 and $R^{7'}$ groups attached to two different carbon atoms may be joined to form a fused, optionally-substituted monocyclic or bicyclic heterocyclic or carbocyclic ring;~~

~~or wherein J is $-C(R^7R^{7'})$, said R^7 and $R^{7'}$ groups of J attached to the same carbon atom may be joined to form a spiro ring, or said R^7 and $R^{7'}$ groups attached to two different carbon atoms may be joined to form a fused, optionally-substituted monocyclic heterocyclic or carbocyclic ring;~~

R^8 and $R^{8'}$ are at each occurrence independently selected from H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, alkynyl or substituted alkynyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or

substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, OR⁴, amino, NHR⁴,
-NR⁵R⁵, -NHOR¹, alkylthio or substituted alkylthio, -C(=O)R¹, -C(=O)OR¹,
-PO₃R¹R^{1'}, -C(=O)NR¹R¹, -C(=O)SR¹, -SOR¹, -SO₂R¹, -SO₂OR¹ and -SO₂NR¹R^{1'};
~~or wherein J' is -CR⁸=CR^{8'}-, said R⁸ and R^{8'} groups attached to two different carbon atoms
may be joined to form a fused, optionally substituted monocyclic heterocyclic or
carbocyclic ring.~~

6 (Canceled).

7 (Amended). The method of claim 5 ~~6~~, wherein:

~~G is a monocyclic or bicyclic aryl or heterocycle and is optionally substituted at one or more
positions;~~

~~Y is (CR⁷R^{7'})_n, where n = 1, 3, or CR⁸=CR^{8'}-;~~

~~A₁ is CR⁷;~~

~~A₂ is CR⁷;~~

R¹ and R^{1'} are each independently selected from H, alkyl or substituted alkyl, alkenyl or
substituted alkenyl, cycloalkyl or substituted cycloalkyl, heterocyclo or substituted
heterocyclo, and aryl or substituted aryl;

R⁴ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkylalkyl or
substituted cycloalkylalkyl, arylalkyl or substituted arylalkyl, -C(=O)R¹, -C(=O)OR¹,
-C(=O)NHR¹, -SO₂R¹ or -SO₂NR¹R^{1'};

R⁵ is alkyl or substituted alkyl, -C(=O)R¹, -SO₂R¹, or -SO₂NR¹R^{1'};

R⁷ and R^{7'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted
alkenyl, heterocycloalkyl or substituted heterocycloalkyl, halo, cyano, OR⁴, -NHR⁴,
-NR⁵R⁵, -C(=O)R¹, -OC(=O)R¹, -C(=O)OR¹, -C(=O)NR¹R^{1'}, -SO₂R¹, or
-SO₂NR¹R^{1'}; or

~~wherein W is -C(R⁷R^{7'})-C(R⁷R^{7'})-, said two R⁷ and R^{7'} groups of W attached to the same
carbon atom may be joined to form a spiro ring, or two said R⁷ and R^{7'} groups
attached to two different carbon atoms may be joined to form a fused, optionally-
substituted monocyclic heterocyclic or carbocyclic ring.~~

8 (Canceled).

9 (Amended). The method of claim ~~5~~⁸ wherein,

G is a monocyclic or bicyclic aryl or heterocyclo and is optionally substituted at one or more positions;

A₁ is CH, C(alkyl), or C(substituted alkyl);

A₂ is CH, C(alkyl), or C(substituted alkyl);

R¹ and R^{1'} are each independently selected from H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, heterocyclo or substituted heterocyclo, and aryl or substituted aryl;

R⁴ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkylalkyl or substituted cycloalkylalkyl, arylalkyl or substituted arylalkyl, -C(=O) R¹, -C(=O)OR¹, -C(=O)NHR¹, -SO₂R¹ or -SO₂NR¹R^{1'};

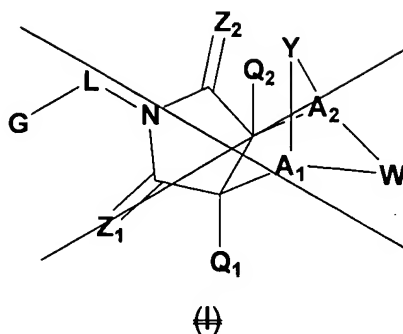
R⁵ is alkyl or substituted alkyl, -C(=O) R¹, -SO₂R¹, or -SO₂NR¹R^{1'}; and

R⁷ and R^{7'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, heterocycloalkyl or substituted heterocycloalkyl, halo, cyano, OR⁴, -NHR⁴, -NR⁵R⁵, -C(=O)R¹, -OC(=O)R¹, -C(=O)OR¹, -C(=O)NR¹R^{1'}, -SO₂R¹, or -SO₂NR¹R^{1'}; or

two R⁷ and R^{7'} groups are joined to a spiro cyclopropyl, or said R⁷ and R^{7'} groups may be joined to form a fused, optionally-substituted monocyclic heterocyclic or carbocyclic ring; and

R⁸ and R^{8'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, heterocycloalkyl or substituted heterocycloalkyl, halo, cyano, OR⁴, -NHR⁴, -NR⁵R⁵, -C(=O)R¹, -OC(=O)R¹, -C(=O)OR¹, -C(=O)NR¹R^{1'}, -SO₂R¹, or -SO₂NR¹R^{1'}.

10. (Amended). A method for treating a condition or disorder in a mammal comprising administering to the mammal a therapeutically effective amount of a compound of the ~~following formulae recited in claim 5, or a pharmaceutically acceptable salt thereof;~~



where the symbols have the following meanings recited in claim 5, and are, for each occurrence, independently selected:

~~G is a cycloalkenyl, aryl or heterocycle group, where said group is mono or polycyclic and is optionally substituted at one or more positions;~~

~~Z₁ is O, S, NH, or NR⁶;~~

~~Z₂ is O, S, NH, or NR⁶;~~

~~Y is -J-J', where J is (CR⁷R^Z)_n and n = 1-3, J' is a bond, -CR⁷R^Z, or -CR⁸=CR⁸, or Y is absent;~~

~~W is -CR⁷R^Z - CR⁷R^Z, -CR⁸=CR⁸, or -CR⁷R^Z - C=O;~~

~~A₁ is CR⁷, or where Y is absent, A₁ is CR⁷R^Z;~~

~~A₂ is CR⁷, or where Y is absent, A₂ is CR⁷R^Z;~~

~~Q₁ and Q₂ are each independently selected from H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocycle or substituted heterocycle, halo, CN, -(C=O)OR⁴, -C(=O)R⁴, -C(=O)NR⁵R⁶, -C(R⁷R^Z)-OH, nitro, -(CH₂)OR⁴, -OR⁴, -C(=O)SR⁴, -SO₂R⁴, -NH₂, and -NR⁴R⁶;~~

~~L is a bond, -(CR⁷R^Z)_m, -NH-, -NR⁶-, -NH(CR⁷R^Z)_m, or -NR⁶(CR⁷R^Z)_m, where m = 0-3;~~

~~R⁴ and R^{4'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, alkynyl or substituted alkynyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocycle or substituted heterocycle, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted~~

~~aryl, arylalkyl or substituted arylalkyl, provided, however, that R¹ is not hydrogen when attached to -SO₂O- or -SO₂-;~~

~~R⁴ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, alkynyl or substituted alkynyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, -C(=O)R⁴, -C(=O)OR⁴, -C(=O)NHR⁴, -SO₂OR⁴, -SO₂R⁴ or -SO₂NR⁴R⁴;~~

~~R⁶ is alkyl or substituted alkyl, alkenyl or substituted alkenyl, alkynyl or substituted alkynyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, -C(=O)R⁴, -C(=O)NHR⁴, -SO₂OR⁴, -SO₂R⁴ or -SO₂NR⁴R⁴;~~

~~R⁶ is alkyl or substituted alkyl, alkenyl or substituted alkenyl, alkynyl or substituted alkynyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, CN, -OR⁴, -C(=O)R⁴, -C(=O)NHR⁴, -SO₂R⁴, -SO₂OR⁴ or -SO₂NR⁴R⁴;~~

~~R⁷ and R⁷ are at each occurrence independently selected from H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, alkynyl or substituted alkynyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, OR⁴, nitro, hydroxylamine, hydroxylamide, NHR⁴, -NR⁶R⁶, -NHOR⁴, thiol, alkylthio or substituted alkylthio, -C(=O)R⁴, -OC(=O)R⁴, -C(=O)OR⁴, -PO₃R⁴R⁴, -C(=O)NR⁴R⁴, -C(=O)SR⁴, -C(=O)NHSO₂R⁴, -SOR⁴, -SO₂R⁴, -SO₂OR⁴ and -SO₂NR⁴R⁴;~~

~~or wherein W' is $-C(R^Z R^{Z'})-$, said R^Z and $R^{Z'}$ groups of W' attached to the same carbon atom may be joined to form a spiro ring, or said R^Z and $R^{Z'}$ groups attached to two different carbon atoms may be joined to form a fused, optionally substituted monocyclic or bicyclic heterocyclic or carbocyclic ring;~~

~~or wherein J is $-C(R^Z R^{Z'})_n-$, said R^Z and $R^{Z'}$ groups of J attached to the same carbon atom may be joined to form a spiro ring, or said R^Z and $R^{Z'}$ groups attached to two different carbon atoms may be joined to form a fused, optionally substituted monocyclic heterocyclic or carbocyclic ring;~~

~~R^8 and $R^{8'}$ are at each occurrence independently selected from H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, alkynyl or substituted alkynyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN , OR^4 , amino, NHR^4 , $-NR^6 R^6$, $-NHOR^4$, alkylthio or substituted alkylthio, $-C(=O)R^4$, $-C(=O)OR^4$, $-PO_3 R^4 R^4$, $-C(=O)NR^4 R^4$, $-C(=O)SR^4$, $-SOR^4$, $-SO_2 R^4$, $-SO_2 OR^4$ and $-SO_2 NR^4 R^4$;~~

~~or wherein J' is $-CR^8=CR^{8'}$, said R^8 and $R^{8'}$ groups attached to two different carbon atoms may be joined to form a fused, optionally substituted monocyclic heterocyclic or carbocyclic ring;~~

~~wherein said condition or disorder is selected from the group consisting of proliferate diseases, cancers, benign prostate hypertrophy, adenomas and neoplasies of the prostate, benign or malignant tumor cells containing the androgen receptor, heart disease, angiogenic conditions or disorders, hirsutism, acne, hyperpilosity, inflammation, immune modulation, seborrhea, endometriosis, polycystic ovary syndrome, androgenic alopecia, hypogonadism, osteoporosis, suppressing spermatogenesis, libido, cachexia, anorexia, inhibition of muscular atrophy in ambulatory patients, androgen supplementation for age related decreased testosterone levels in men, cancers expressing the estrogen receptor, prostate cancer, breast cancer, endometrial cancer, hot flushes, vaginal dryness, menopause, amenorrhea, dysmenorrhea, contraception, pregnancy termination, cancers containing the progesterone receptor, menopause,~~

~~cyclesynchrony, meningioma, fibroids, labor induction, autoimmune disease, Alzheimer's disease, psychotic disorders, drug dependence, non-insulin dependent Diabetes Mellitus, dopamine receptor mediated disorders, congestive heart failure, dysregulation of cholesterol homeostasis, and attenuating the metabolism of a pharmaceutical agent.~~

11 (Previously presented). The method of claim 10, wherein said disorder is prostate cancer.

12 (Canceled).

13 (Amended). The method of claim ~~10~~¹⁰⁴² wherein,

G is a monocyclic or bicyclic aryl or heterocyclo and is optionally substituted at one or more positions;

A₁ is CH, C(alkyl), or C(substituted alkyl);

A₂ is CH, C(alkyl), or C(substituted alkyl);

R¹ and R^{1'} are each independently selected from H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, heterocyclo or substituted heterocyclo, and aryl or substituted aryl;

R⁴ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkylalkyl or substituted cycloalkylalkyl, arylalkyl or substituted arylalkyl, -C(=O)R¹, -C(=O)OR¹, -C(=O)NHR¹, -SO₂R¹ or -SO₂NR¹R^{1'};

R⁵ is alkyl or substituted alkyl, -C(=O)R¹, -SO₂R¹, or -SO₂NR¹R^{1'};

R⁷ and R^{7'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, heterocycloalkyl or substituted heterocycloalkyl, halo, cyano, OR⁴, -NHR⁴, -NR⁵R⁵, -C(=O)R¹, -OC(=O)R¹, -C(=O)OR¹, -C(=O)NR¹R^{1'}, -SO₂R¹, or -SO₂NR¹R^{1'}; or

two R⁷ and R^{7'} groups are joined to a spiro cyclopropyl, or said R⁷ and R^{7'} groups may be joined to form a fused, optionally-substituted monocyclic heterocyclic or carbocyclic ring; and

R^8 and $R^{8'}$ are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, heterocycloalkyl or substituted heterocycloalkyl, halo, cyano, OR^4 , $-NHR^4$, $-NR^5R^5$, $-C(=O)R^1$, $-OC(=O)R^1$, $-C(=O)OR^1$, $-C(=O)NR^1R^{1'}$, $-SO_2R^1$, or $-SO_2NR^1R^{1'}$.